

CLAIM AMENDMENTS

1-47. (cancelled)

48. (currently amended) A method for applying and tying a surgical suture, said method comprising:

(a) providing a suturing device comprising a handle at one end and at least one needle and at least one suture at the other end;

(b) in response to at least one triggering event at the handle, performing the following acts automatically at the other end of the suturing device by the suturing device:

(b1) passing a portion of the suture through tissues to be held together with the needle; then

(b2) forming a knot in the suture without preparatory manual looping of the suture by a user.

49. (original) The method of Claim 48 further comprising:

(c) cutting the suture on both sides of the knot with the suturing device after (b).

50. (original) The method of Claim 48 wherein the suturing device provided in (a) comprises a plurality of sutures, and wherein the method further comprises:

(c) moving a next one of the sutures into alignment with the needle after (b).

51. (previously presented) A method for applying and tying a surgical suture, said method comprising:

(a) providing a suturing device comprising a handle at one end and a

suture delivery system at the other end, said suture delivery system comprising:

- a suture wrapped in a set of coils, said suture comprising a first end and a second end;

- a suture carrier comprising a line passing through at least one of the coils, said line comprising a first end and a second end;

- a needle guide; and

- a needle slideably mounted in the needle guide; and then

(b) performing the following acts:

- (b1) passing the second end of the suture with the needle through tissues to be secured together; then

- (b2) gripping the second end of the suture with the suture carrier near the second end of the line; and then

- (b3) moving the second end of the suture through said at least one of the coils with the suture carrier.

52. (previously presented) A method for applying and tying a surgical suture, said method comprising:

(a) providing a suturing device comprising a handle at one end and a suture delivery system at the other end, said suture delivery system comprising:

- a suture wrapped in a set of coils, said suture comprising a first end and a second end;

- a gripping element configured to grip the second end of the suture;

- a needle guide; and

- a needle slideably mounted in the needle guide; and then

(b) performing the following acts:

- (b1) passing the second end of the suture with the needle through tissues to be secured together; then

(b2) passing the second end of the suture through said at least one of the coils with the needle; and then

(b3) gripping the second end of the suture with the gripping element.

53. (previously presented) A method for applying and tying a surgical suture, said method comprising:

(a) providing a suturing device comprising a handle at one end and a suture delivery system at the other end, said suture delivery system comprising:

a suture having a partially tied knot comprising at least one loop, said suture comprising a first end and a second end;

a suture carrier comprising a line passing through the loop of the partially tied knot, said line comprising a first end and a second end;

a needle guide; and

a needle slideably mounted in the needle guide; and then

(b) performing the following acts:

(b1) passing the second end of the suture with the needle through tissues to be secured together; then

(b2) gripping the second end of the suture with the suture carrier near the second end of the line; and then

(b3) moving the second end of the suture through the loop with the suture carrier.

54. (previously presented) A method for applying and tying a surgical suture, said method comprising:

(a) providing a suturing device comprising a handle at one end and a suture delivery system at the other end, said suture delivery system comprising:

- a suture having a partially tied knot comprising at least one loop,
- said suture comprising a first end and a second end;
- a gripping element configured to grip the second end of the suture;
- a needle guide; and
- a needle slideably mounted in the needle guide; and then
- (b) performing the following acts:
 - (b1) passing the second end of the suture with the needle through tissues to be secured together; then
 - (b2) passing the second end of the suture through the loop with the needle; and then
 - (b3) gripping the second end of the suture with the gripping element.

55. (previously presented) The method of Claim 51 wherein the suture delivery system of (a) comprises a tube, and wherein the suture is wrapped around the tube prior to performing (b).

56. (previously presented) The method of Claim 52, 53 or 54 wherein the suture delivery system of (a) comprises a tube, and wherein the suture is wrapped around the tube prior to performing (b).

57. (original) The method of Claim 55 wherein the tube provided in (a) comprises first and second legs and a bight portion arranged in a U-shape, and wherein the suture is wrapped around both legs of the tube.

58. (previously presented) The method of Claim 57 further comprising:

- (b4) tightening the first and second ends of the suture; and
- (c) placing at least one spacer between the bight portion and the

suture and between the first and second legs prior to (b4).

59. (previously presented) The method of Claim 74 further comprising:
 - (c) placing at least one spacer in at least one loop of the suture prior to (b4).
60. (previously presented) The method of Claim 74 wherein (b4) comprises:
 - (b4a) pulling at least one of the ends of the suture to tighten a first loop of the suture but not a second loop of the suture; and then
 - (b4b) pulling at least one of the ends of the suture to tighten the second loop of the suture.
61. (previously presented) The method of Claim 75 wherein (b4) comprises:
 - (b4a) pulling at least one of the ends of the suture to tighten a first loop of the suture but not a second loop of the suture; and then
 - (b4b) pulling at least one of the ends of the suture to tighten the second loop of the suture.
62. (previously presented) The method of Claim 60 further comprising; progressively reducing an effective width of the spacer during (b4b).
63. (previously presented) The invention of Claim 55 further comprising:
 - (b4) tightening the first and second ends of the suture,wherein the tightening of (b4) causes the suture to break through the tube.
64. (previously presented) The invention of Claim 56 further comprising:
 - (b4) tightening the first and second ends of the suture,

wherein the tightening of (b4) causes the suture to break through the tube.

65. (previously presented) The method of Claim 60 further comprising:
(b4c) automatically initiating (b4b) when tension in the first loop reaches a threshold value during (b4a).

66. (previously presented) The method of Claim 61 further comprising:
(b4c) automatically initiating (b4b) when tension in the first loop reaches a threshold value during (b4a).

67. (previously presented) The method of Claim 51, 52, 53 or 54 wherein (b) forms a knot in the suture, and wherein the method further comprises:
(c) cutting the suture on both sides of the knot with the suturing device after (b).

68. (previously presented) The method of Claim 51, 52, 53 or 54 wherein the suture delivery system provided in (a) comprises a plurality of sutures, and wherein the method further comprises:
(c) moving a next one of the sutures into alignment with the needle after (b).

69. (previously presented) A method for applying and tying a surgical suture, said method comprising:
(a) providing a suturing device comprising a handle at one end and at least one needle and at least one suture at the other end;
(b) in response to a first triggering event at the handle, performing the following acts at the other end of the suturing device:
(b1) passing a portion of the suture through two tissues to be held together with the needle; then

- (b2) forming at least first and second loops in the suture; and then
 - (b3) tightening the first loop;
- (c) in response to a second triggering event at the handle, performing the following acts at the other end of the suturing device;
 - (c1) tightening the second loop; and then
 - (c2) cutting the suture on both sides of the second loop.

70. (original) The method of Claim 69 wherein the suturing device provided in (a) comprises a plurality of sutures, and wherein (c) further comprises:

- (c3) moving a next one of the sutures into alignment with the needle.

71. (previously presented) A method for applying and tying a surgical suture, said method comprising:

- (a) providing a suturing device comprising a handle at one end and at least one needle and at least one suture at the other end, each said suture comprising a partially tied knot comprising a second loop;
- (b) in response to a first triggering event at the handle, performing the following acts at the other end of the suturing device:
 - (b1) passing a portion of the suture through two tissues to be held together with the needle; then
 - (b2) forming at least a first loop in the suture and then
 - (b3) tightening the first loop;
- (c) in response to a second triggering event at the handle, performing the following acts at the other end of the suturing device;
 - (c1) tightening the second loop; and then
 - (c2) cutting the suture on both sides of the second loop.

72. (original) The method of Claim 71 wherein the suturing device provided

in (a) comprises a plurality of sutures, and wherein (c) further comprises:

(c3) moving a next one of the sutures into alignment with the needle.

73. (original) The method of Claim 48 further comprising:

(b3) tightening the knot with the suturing device.

74. (original) The method of Claim 51 or 52 further comprising:

(b4) tightening the first and second ends of the suture.

75. (original) The method of Claim 53 or 54 further comprising:

(b4) tightening the first and second ends of the suture.

76. (original) The method of Claim 51, 52, 53 or 54 wherein (b) is performed automatically in response to at least one triggering event.

77. (previously presented) The method of Claim 73 wherein (b4) is performed automatically in response to a triggering event.

78. (previously presented) The method of Claim 74 wherein (b4) is performed automatically in response to a triggering event.

79. (previously presented) The method of Claim 75 wherein (b4) is performed automatically in response to a triggering event.

80. (previously presented) The method of Claim 49 wherein (c) is performed automatically in response to a triggering event.

81. (previously presented) The method of Claim 50 wherein (c) is performed

automatically in response to a triggering event.

82. (previously presented) The method of Claim 70 or 72 wherein (c3) is performed automatically in response to a triggering event.